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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,784	07/25/2001	Jeffrey K. Jeansonnc	1662-36800 JMH (P00-3492)	5605
23505	7590	11/09/2004	EXAMINER ZHONG, CHAD	
CONLEY ROSE, P.C. P. O. BOX 3267 HOUSTON, TX 77253-3267			ART UNIT 2152	PAPER NUMBER

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,784

Applicant(s)

JEANSONNE ET AL.

Examiner

Chad Zhong

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2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-44 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 7-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakker et al. (hereinafter Thakker), US 6487425, in view of 'Official Notice'.

4. As per claim 1, Thakker teaches a notebook computer system with wireless networking capability, the notebook computer comprising (Col. 4, lines 40-55):

a wireless communication module coupled to a secondary expansion bus, the wireless communication module configured to perform radio frequency wireless data communication to a network, and wherein the wireless communication module is further configured to scan radio channels for availability of wireless access (Col. 4, lines 55-67);

a power supply having a power rail, the power rail coupled to the wireless communication module and providing power to the wireless communication module responsive to assertion of an enable signal of the power supply (Col. 7, lines 15-25);

an external seek enable button mounted on an exterior surface of the notebook computer;

a seek logic having:

- i) a power supply enable output signal coupled to the enable signal of the power supply (Col. 7, lines

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15-25);

ii) a seek command output signal coupled to the wireless communication module (Col. 8, lines 45-62); and

iii) a seek request input signal coupled to the external seek enable button (Col. 7, lines 15-25);

wherein the seek logic is configured such that when the external seek button is activated, the seek logic activates the power supply by assertion of the power supply enable signal, and asserts the seek command output signal to the wireless communication module;

wherein the wireless communication module is configured to scan radio channels for availability of wireless access responsive to assertion of the seek command output signal of the seek logic; and

wherein the wireless communication module is further configured indicate the availability of a wireless access point (Col. 3, lines 1-10; Col. 4, lines 55-67; Col. 7, lines 15-25; Col. 8, lines 45-62).

5. Thakker does not explicitly teaches

a central processing unit (CPU);

a system main memory;

a host bridge device coupling the CPU and system main memory;

an input/output controller hub (ICH) coupled to the host bridge by way of a primary expansion bus

“Official Notice” is taken that the concept and advantages of providing for the above functionalities are well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include the above computer architecture with Thakker because it would provide for basic motherboard to module for an IBM based personal computer.

6. As per claim 2, claim 2 is rejected for the same reasons as rejection to claim 1 above.

7. As per claim 3, Thakker teaches the notebook computer as defined in claim 1 wherein the display device further comprises a notification step wherein a device is coupled to a digital output signal of the

microcontroller.

8. Thakker does not explicitly teaches the notion of a light emitting diode (LED), “Official Notice” is taken that the concept and advantages of providing for LEDs are well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include the LEDs for notification purposes with Thakker because it would provide for a way of notifying the user. Further, Thakker teaches the notification step wherein the message of notification comes from the access point when a call/message is about to be forwarded to the client. Availability of an connection is inherently taught when the connection is made between client and the access point during data communication.

9. As per claim 4, claim 4 is rejected for the same reasons as rejection to claim 3 above.

10. As per claim 5, Thakker teaches the notebook computer as defined in claim 2 wherein the display device further comprises a display means for displaying text messages indicative of the availability of wireless access (Col. 7, lines 1-15; Col. 18, lines 9-16).

11. As per claim 7, Thakker teaches the notebook computer as defined in claim 1 wherein the power supply further comprises:

an enable input signal, and wherein the power supply powers the power rail responsive to assertion of the enable input signal, and turns off the power to the power rail responsive to de-assertion of the enable input signal; and

wherein the enable input signal couples to each of the seek logic and a keyboard controller (Col. 7, lines 1-25, wherein after signal is activated in response to button, power is kept to minimum as only power required is to continuously monitoring RF signal and location of the mobile device; Fig 5).

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12. As per claim 8, Thakker teaches the notebook computer as defined in claim 1 wherein the external seek enable button further comprises a momentary push button mounted on a top surface of a display device of the notebook computer (Fig 5).

13. As per claim 9, Thakker teaches the notebook computer as defined in claim 1 wherein the external seek enable button further comprises a button mounted on a front edge of the notebook computer system (Fig 5).

14. As per claim 10, Thakker teaches the notebook computer as defined in claim 1 wherein the seek logic is further adapted refrain from asserting the seek command signal when the notebook computer is powered-on (here the user has the choice to press the button to operate in lower power mode, this claim is geared towards activation of power saving under user discretion).

15. As per claim 11, claim 11 is rejected for the same reasons as rejection to claim 1 above.

16. As per claim 12, claim 12 is rejected for the same reasons as rejection to claim 3 above.

17. As per claim 13, Thakker teaches the method as defined in claim 11 wherein informing the computing device user further comprises scrolling a message across a liquid crystal display (Col. 7, lines 1-15).

18. As per claim 14, Thakker teaches the method as defined in claim 11 wherein powering the wireless communication module further comprises:

pushing a button on an external surface of the computing device (Col. 7, lines 1-25); and

enabling substantially only a power supply within the portable computer system that supplies the wireless communication module (Col. 2, lines 55-67).

19. As per claim 15, Thakker teaches the method as defined in claim 11 wherein commanding the

wireless communication module to perform a wireless LAN access seek function further comprises:

asserting a seek command digital signal by a seek logic in the computing device;

receiving the asserted seek command digital signal by the wireless communication module; and

executing firmware within a microcontroller responsive to assertion of the seek command digital signal (Col. 2, lines 35-65; Col. 3, lines 1-10, wherein the POP involves software operating on RAMs, for little amount of energy as possible, this is the way to operate under a fraction of energy compared to the original setup.).

20. As per claim 16, Thakker teaches the method as defined in claim 11 wherein determining whether a wireless LAN access point is available further comprises executing software in a microcontroller that performs a seek function (Col. 3, lines 1-10).

21. As per claim 17, claim 17 is rejected for the same reasons as rejection to combination of claims 1 and 8 above.

22. As per claim 18, claim 18 is rejected for the same reasons as rejection to claim 2 above.

Further, the notion of USB connection is not explicitly taught in Thakker, "Official Notice" is taken that the concept and advantages of providing for USB connection is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include USB port with Thakker because it would provide for an alternative way to detect wireless access points. Moreover, Thakker teaches the notion of two numbers/modes of operation, one for full battery and other for power saving, both modes are capable of detection of wireless access points, thus the two method of detecting for wireless access point is taught by this aspect of Thakker.

23. As per claims 19-22, claims 19-22 are rejected for the same reasons as rejection to claims 3, 5, 8, and 9 respectively.

24. As per claim 23, Thakker teaches the computer system as defined in claim 22 wherein the seek logic further comprises:

a power supply enabled input signal, wherein the power supply enabled input signal is asserted to indicate that the notebook computer is powered-on; and

wherein the seek logic is further configured to refrain from asserting its seek output signal if the power supply enabled input signal is asserted (when a call is in process, i.e. phone is in full power mode, one should refrain from going into power saving mode; however, this is different from handoff situation, wherein the communication is already established between two network nodes; moreover, Thakker teaches the buttons responsible for power on/off and power saving mode on/off, the power saving mode is refrained from going into unless user intervenes; judging from the claims, applicant teaches away from scanning if the power is fully operational, thus when computer is powered on, a connection is set up for the client already thus the seeking can stop; Similarly, Thakker scans in the power saving mode and stops scanning when a connection is made during full power mode).

25. As per claim 24, Thakker teaches the computer system as defined in claim 17 wherein, responsive to a momentary actuation of the electrical switch, the seek logic is configured to assert the power supply output signal for a sufficient amount of time to allow the radio module to perform a wireless access seek function, and wherein the seek logic further momentarily asserts its seek output signal responsive to the momentary actuation of the electrical switch (Col. 7, lines 15-25; Col. 8, lines 45-62).

26. As per claim 25-26, claims 25-26 are rejected for the same reasons as rejection to claims 23, 1 above respectively.

27. As per claim 27-28, claims 27-28 are rejected for the same reasons as rejection to claim 1 above.

28. As per claim 29-31, claims 29-31 are rejected for the same reasons as rejection to claims 1, 15

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and 3 above respectively.

29. As per claim 32, claim 32 is rejected for the same reasons as rejection to combination of claims 1 and 8 above.

30. As per claim 33-34, claims 33-34 are rejected for the same reasons as rejection to claims 3 and 10 above respectively.

31. As per claim 35, Thakker teaches the computer system as defined in claim 32 wherein the first power supply powers substantially only the wireless communication module (Col. 2, lines 55-67, wherein battery is powering only the seeking portion).

32. As per claim 36, claim 36 is rejected for the same reasons as rejection to combination of claims 1 and 32 above.

33. As per claims 37-39, claims 37-39 are rejected for the same reasons as rejection to claims 8, 10 and 3 above respectively.

34. As per claim 40, claim 40 is rejected for the same reasons as rejection to combination of claims 1 and 8 above.

35. As per claim 41-42, claims 41-42 are rejected for the same reasons as rejection to claim 3 above.

36. As per claim 43, claim 43, is rejected for the same reasons as rejection to claim 5 above.

37. As per claim 44, claim 44 is rejected for the same reasons as rejection to combination of claims 1 and 2 above.

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38. As per claim 6 Claims 1-5, 7-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakker et al. (hereinafter Thakker), US 6487425, in view of Li et al. (hereinafter Li), US 2002/0142746, further in view of 'Official Notice'.

39. As per claim 6, Thakker does not explicitly teach the notebook computer as defined in claim 2 wherein the plurality of radio circuits further comprises:

- a base-band to intermediate frequency (BB-IF) converter coupled to said microcontroller;
- an intermediate frequency to radio frequency (IF-RF) converter coupled to the BB-IF converter;
- a radio frequency power amplifier coupled to the IF-RF converter, wherein the radio frequency power amplifier amplifies a radio signal; and
- an antenna that couples to the radio frequency power amplifier.

40. Li teaches

- a base-band to intermediate frequency (BB-IF) converter coupled to said microcontroller;
- an intermediate frequency to radio frequency (IF-RF) converter coupled to the BB-IF converter;
- an antenna that couples to the radio frequency power amplifier (Fig 5).

41. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Thakker and Li because they both utilizing hardware components to convert signals to achieve network communication. Furthermore, the teaching of Li to allow the above section would improve the functionality for Thakker's system by specifically list out the components needed for the signal conversion, thus enabling easy assembly of such a conversion circuit.

42. Thakker and Li does not explicitly teach

a radio frequency power amplifier coupled to the IF-RF converter, wherein the radio frequency power amplifier amplifies a radio signal, "Official Notice" is taken that the concept and advantages of providing

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for amplifier is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include amplifier with Thakker and Li because it would provide for amplification for a weak signal and perform additional signal processing techniques based on the amplified signal.

Conclusion

43. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents and publications are cited to further show the state of the art with respect to

“WIRELESS ACCESS POINT SEEK MODE FOR WIRELESS ACCESS CLIENTS”.

- i. US 5826015 Schmidt et al.
- ii. US 2001/0031626 Linskog et al.
- iii. US 2002/0069231 Ichikawa

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (703) 305-0718. The examiner can normally be reached on M-F 7am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on 703-305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CZ
October 20, 2004



Dung C. Dinh
Primary Examiner

Dung C. Dinh
Primary Examiner